

REMARKS

Applicant hereby traverses the outstanding rejections, and requests reconsideration and withdrawal in light of the remarks contained herein. Claims 1, 9, and 16 have been amended. Claim 2 has been cancelled. Claims 1 and 3-20 are pending.

I. Claim Amendments

Applicant respectfully requests that the Examiner enter the following amendments, which Applicant believes will place the application in condition for allowance and/or appeal.

Claim 1 is amended to require, in part, “... displaying a corrected digital image, wherein said steps of receiving, identifying, determining, rotating, and displaying are performed within a digital camera.” No new matter has been added, as support for this limitation may be found in the specification, for example, at pages 6-8.

Claims 9 and 16 are amended to replace the term “autonomously” with the term “automatically.” No new matter has been added, as support for the newly claimed limitations may be found in the specification, for example, at page 6.

II. Claim Rejections Under 35 U.S.C. § 112

Claims 9-20 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner states that “[t]he newly added limitations, ‘autonomously,’ ..., do not have support in the original specification.” Office Action, page 4. Applicant traverses and asserts that the term “autonomously” is supported in the specification through express, implicit, and/or inherent disclosure. However, to expedite prosecution of this application, claims 9 and 16 have been amended to replace the term “autonomously” with the term “automatically,” for which there is explicit support in the specification, for example, on page 6.

Thus, Applicant respectfully asserts that, at least for the above reasons, claims 9-20 are patentable over the 35 U.S.C. § 112 rejection of record, and asks that the Examiner’s rejection of claims 9-20 be withdrawn.

III. Claim Rejections Under 35 U.S.C. § 102

In order for a claim to properly stand rejected under 35 U.S.C. § 102, the reference must teach every element of the claimed invention. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” M.P.E.P. 2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ...claim.” M.P.E.P. § 2131, citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

A. Rejections over Tretter

Claims 1, 3, 4, 6, and 8 stand rejected under 35 U.S.C. § 102 as being anticipated by *Tretter* (U.S. Patent No. 5,901,253, hereinafter, *Tretter*).

Claim 1, as amended herein, requires, in part, “... displaying a corrected digital image, wherein said steps of receiving, identifying, determining, rotating, and displaying are performed within a digital camera.” The Examiner admits that “... *Tretter* does not teach details on the camera” Office Action, page 6. In fact, *Tretter* teaches a method for processing an image generated from a scanner. Abstract. Therefore, claim 1, as amended, is not anticipated by *Tretter*. Accordingly, the 35 U.S.C. § 102 rejection of claim 1 over this reference should be withdrawn.

Claims 3, 4, 6, and 8 depend directly from base claim 1, and thus inherit all of its limitations. Each of claims 3, 4, 6, and 8 sets forth features and limitations not recited by *Tretter*. Thus, the Applicant respectfully asserts that, at least for the above reasons, claims 3, 4, 6, and 8 are patentable over the 35 U.S.C. § 102 rejection of record.

B. Rejections over Zimmermann

Claims 9 and 10 stand rejected under 35 U.S.C. § 102 as being anticipated by *Zimmermann* (U.S. Patent No. 5,185,667 hereinafter, *Zimmermann*).

Claim 9, as amended herein, requires, in part, “a tilt determining mechanism configured to automatically sense orientation errors of received images.” The Examiner

contends that this limitation is taught at *Zimmermann* column 3, lines 36, 38. Office Action, page 3. However, at the cited portion, *Zimmermann* teaches:

The image transform processors are controlled by the microcomputer and control interface 5. The microcomputer control interface provides initialization and transform parameter calculation for the system.

Applicant respectfully points out that the passage relied upon by the Examiner does not teach the tilt determining mechanism of claim 9. The Examiner also contends that that this limitation is taught at *Zimmermann* column 4, lines 48, 51. Office Action, page 3. However, at the cited portion, *Zimmermann* teaches:

The invention as described has the capability to pan and tilt the output image through the entire field of view of the lens element by changing the input means, e.g. the joystick or computer, to the controller.

Again, Applicant respectfully points out that the passage relied upon by the Examiner does not teach the tilt determining mechanism of claim 9. While the cited passage may, perhaps, disclose a tilting mechanism, it does not disclose a tilt *determining* mechanism as required by claim 9. No section of *Zimmermann* teaches a tilt determining mechanism configured to automatically sense orientation errors of received images. Therefore, claim 9 is not anticipated by *Zimmermann*. Applicant respectfully requests that the Examiner expressly point to a particular a different structure in *Zimmermann* for each claimed element of Applicant's claims. To the extent that the Examiner cannot do so, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 102 rejection of claim 9.

Claim 10 depends directly from base claim 9, and thus inherits all of its limitations. Further, claim 10 sets forth features and limitations not recited by *Zimmermann*. Thus, the Applicant respectfully asserts that, at least for the above reasons, claim 10 is patentable over the 35 U.S.C. § 102 rejection of record.

IV. Claim Rejections Under 35 U.S.C. § 103

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to

combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Applicants assert that the Examiner's rejections fail to meet the basic criteria.

A. Rejections over Zimmermann in view of Sharp

Claims 11-15 stand rejected under 35 U.S.C. § 103 as being unpatentable over *Zimmermann* in view of *Sharp* (GP1S36 Tilt Detecting Photointerrupter, hereinafter *Sharp*). Nonetheless, the Examiner may be relying on *Tretter* as teaching some of the elements of claims 13-15. Office Action, page 7. Hence, the Applicant respectfully requests that the Examiner clarify the basis of these rejections.

Lack of Motivation

Applicant asserts that the motionless camera system of *Zimmermann* could not be combined or modified to utilize the physical tilt detector of *Sharp* in any meaningful manner. While *Zimmermann*'s system corrects an image acquired by a fixed, motionless camera (abstract), *Sharp*'s tilt sensor is an electro-mechanical device that determines motion and/or changes in the physical orientation of a camera (figure on page 3). Because *Zimmermann*'s camera does not move (i.e., it is *motionless*), there is simply no reason, suggestion, or motivation to combine it with the motion-based, tilt sensor of *Sharp*.

In addition, *Zimmermann*'s system corrects the perspective of an electronic image caused by the effect of a fish-eye lens (abstract; col. 4, lns. 12-47), whereas *Sharp*'s sensor merely detects the orientation of a camera as being in a landscape or portrait position (-90, 0, or +90 degrees; figure on page 3). Applicant asserts that the electro-mechanical tilt sensor of *Sharp* could not conceivably be used to correct, or even to assist in the correction of, the optical distortion problem addressed by *Zimmermann*.

Furthermore, even if the motionless camera system of *Zimmermann* were capable of being combined with the tilt detector of *Sharp* in some way, the Applicant points out that, when the proposed combination of prior art references "would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." M.P.E.P. § 2143 citing *In re Ratti*,

270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959). *Zimmermann* and *Sharp* cannot be combined, at least, because such combination would require a substantial reconstruction and redesign of the elements disclosed in the primary reference, as well as a change in the basic principle under which the primary reference construction was designed to operate. *In re Ratti*, 270 F.2d at 813, 123 U.S.P.Q. at 352. Applicant asserts that the motionless system of *Zimmermann* could not be combined with the motion sensor of *Sharp* without extensive, substantial alterations, to its principle of operation.

Finally, the Examiner states that “[i]t would have been obvious ... to incorporate tilt sensor taught in *Sharp* into the *Zimmermann*’s tilt determining mechanism because *Zimmermann* already teaches tilt determining and correcting mechanism” Office Action, pages 6-7. As noted above, the Applicant asserts that *Zimmermann* does not teach a tilt determining mechanism. Any additional teaching printed by *Sharp* would be duplicative and hence unnecessary, with the teaching of *Zimmermann*. However, even under the Examiner’s own rationale, there would be no reason to combine *Zimmermann* with *Sharp* because *Zimmermann* would already teach a tilt determining mechanism. Therefore, Applicant contends that it is not proper to combine *Zimmermann* and *Sharp*, and respectfully requests that the Examiner withdraw the 35 U.S.C. § 103 rejection of claims 11-15.

Lack of Claimed Limitations

As noted above, *Zimmermann* does not teach or suggest, at least, the tilt determining mechanism required by claim 9. *Sharp* does not teach or suggest a tilt determining mechanism either, and the Examiner does not rely on *Sharp* as teaching or suggesting such element. Therefore, the combination of *Zimmermann* and *Sharp* fails to disclose, teach, or suggest all of the limitations of claim 9. Claims 11-15 are dependent from base claim 9, and thus inherit all of its limitations. Consequently, the combination of *Zimmermann* and *Sharp* also fails to teach or suggest all of the limitations of claims 11-15. Accordingly, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103 rejection of claims 11-15.

B. Rejections over *Tretter* in view of *Zimmermann*

Claims 5 and 16-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over *Tretter* in view of *Zimmermann*. Applicant respectfully traverses this rejection, at least, for the reasons that follow.

Lack of Motivation

Applicant asserts that the skew detection system of *Tretter* cannot be combined or modified to utilize the distortion correction system of *Zimmermann* in any meaningful manner. *Tretter* discloses correcting a skew angle of an image acquired by a scanner (abstract), whereas *Zimmermann*'s system corrects a distortion of an image acquired through a fish-eye camera lens (abstract; col. 4, lns. 12-47). However, there is no indication in *Tretter* that the tilted image acquired by the scanner contains any optical distortion such as the one caused by the hemispherical field-of-view of *Zimmermann*'s camera lens. Hence, there is no reason, suggestion, or motivation to combine these references.

With respect to claim 16, the Examiner states that “*Zimmermann* teaches ... reducing a misalignment of [an] image.” Office Action, page 8. However, Applicant points out that, at the cited passage, *Zimmermann* does not disclose reducing a misalignment, but only the transformation of a distorted image acquired through the intentional use of a fish-eye camera lens. The Examiner goes on to state that “[i]t would have been obvious ... to incorporate old and well-known image orientation correction technique into image captured by a digital camera because regardless of whether image is obtained by conventional optical camera or digital camera, both still require all the orientation distortion, including tilt and rotation.” Office Action, page 8. Applicant respectfully requests that the Examiner clarify this statement. In any event, Applicant disagrees with the Examiner’s characterization because there is no motivation to combine *Tretter* and *Zimmermann*.

With respect to claims 5, 18, and 19, the Examiner states that “[i]t would have been obvious ... to incorporate compression algorithm into digital image processing technique.” However, neither *Tretter* nor *Zimmermann* discloses a “method [for] compressing [an] image and/or an “image compressor,” as recited in claims 5 and 18-19, respectively. Merely stating

that the cited references may be modified to meet the claimed invention because compressing data would have been known to one of ordinary skill in the art is not sufficient to establish a *prima facie* case of obviousness. *See* M.P.E.P. § 2143.01. Applicant respectfully requests that the Examiner withdraw this rejection or provide an affidavit in support of these facts as required by the Section 2144.03 of the M.P.E.P..

Applicant respectfully asserts that, at least for the above reasons, claims 5 and 16-20 are patentable over the 35 U.S.C. § 103 rejection of record.

C. Rejection over *Tretter* in view of *Sharp*

Claim 7 stands rejected under 35 U.S.C. § 103 as being unpatentable over *Tretter* in view of *Sharp*. Applicant respectfully traverses this rejection, at least, for the reasons that follow.

Lack of Motivation

Applicant asserts that there is no motivation, either in the teachings of the references or in the knowledge of persons of ordinary skill in the art, to combine the skew angle detection system of *Tretter* with the tilt detector of *Sharp*. *Tretter* discloses a skew angle detection system that corrects a skew angle of an image acquired by a scanner (abstract), whereas *Sharp*'s tilt sensor is an electro-mechanical device that determines motion and/or changes in the physical orientation of a camera (figure on page 3). Because there is no indication that *Tretter*'s scanner is movable, and also because it would be unnecessary to determine the orientation of the scanner in correcting a skew angle of a scanned image (col. 1, lns. 14-30), there is simply no reason, suggestion, or motivation to combine it with the tilt sensor of *Sharp*. Therefore, Applicant contends that it is not proper to combine *Tretter* and *Sharp*, and respectfully requests that the Examiner withdraw the 35 U.S.C. § 103 rejection of claim 7.

V. Conclusion

In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-2025, under Order No. 10005753-1, from which the undersigned is authorized to draw.

Dated: March 11, 2005

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV482745640US, in an envelope addressed to: MS AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: March 11*, 2005

Signature: 
June Nguyen

Respectfully submitted,

By

Michael A. Papas
Registration No.: 40,381
Attorney for Applicant

(214) 855-8186